

6/11/04 This is the fifth draft of the chapter Raising for Free Cards in Hold'em Brain by King Yao. Please email feedback, suggestions, comments, opinions, questions to KingYao@HoldemBrain.com or you could use the Feedback Form to email me at the bottom of the page.

Hold'em Brain: Raising for Free Cards **Copyright 2004 by King Yao**

Raising for a free card is a strategy used by a late position player on the Flop to show strength when he is on a draw. (To EDITOR: please put this in a footnote - The assumption in this book is that the bet doubles on the Turn. In games where the bet on the Turn remains the same, the strategy of raising for a free card is not applicable.) When the strategy works, the early position player(s) will check to the late position player on the Turn. Then the late position player can choose to bet if he has made his draw or check if he has not, thereby gaining a free card (he may choose to bet again if he has not made his draw, but that bet on the Turn would be considered a semi-bluff). There is also the added value of the possibility, albeit usually small, that early position player(s) will fold to a raise on the Flop.

Here is an example of raising for a free card on the Flop with a flush draw.

Your hand: 4♦3♦

Your opponent's hand: T♥9♥

Flop: K♦9♦5♣

There are only two players left on the Flop. Your opponent acts first and he bets with his middle pair of 9's. You raise with a diamond flush draw and your opponent calls. You have 9 outs to make a flush.

Turn: 8♠

Your opponent checks because he is worried his middle pair is not the best hand after he got raised on the Flop. You do not have anything yet and are still hoping to catch the flush, so you decide to check also (if your opponent is weak and you think there is a chance he will fold middle pair in this spot, you should bet again as a semi-bluff). The Turn is your "free card" since you do not have to put in a bet on the Turn even though you are behind. By raising on the Flop, you used a small bet to convince your opponent to check on the Turn. If your opponent had bet on the Turn, it would have forced you to put in a big bet to see if you can catch a flush on the River. Not having to put in a bet on the Turn is helpful if the flush does not come. If the flush does come on the Turn, you can bet after your opponent checks.

If there is a chance your opponent will fold, then there is added value in raising for a free card. But if your opponent will not fold on the Flop when you raise, then raising for a free card does not change the probability of you winning the hand. It just changes the amount that you win or lose. Assuming your free card raising strategy goes as planned and your opponent does not fold (although it would be nice if he did), you will win more (one small bet) if a flush card comes on the

Turn. If the flush comes on the River instead, then you win less (one small bet less). If it doesn't come at all, then you lose less (one small bet less). If your opponent cooperates by checking the Turn after you raise the Flop, then the EV of raising is greater than the EV of calling when you have a flush draw.

Here is a chart showing the results of raising or calling on the Flop depending on when the flush comes. The amount won or lost is in terms of big bets. This chart assumes:

- If you raise, your opponent will call your raise on the Flop and check to you on the Turn.
- If you call, your opponent will keep betting until a third flush card comes, then he will check with the intention of calling if you bet.

When does the Flush Come	Probability	Expected W/L if you <u>Raised</u> on the Flop	Expected W/L if you <u>Called</u> on the Flop
Turn	19.15%	+3 ^a	+2.5 ^d
River	15.82%	+2 ^b	+2.5 ^d
Never	65.03%	-1 ^c	-1.5 ^e
EV		+0.24^f big bets	-0.10^g big bets

[To the Editor - please put these notes in the Footnote]

^a 2 small bets on the Flop, 1 big bet on the Turn, 1 big bet on the River - total 3 big bets

^b 2 small bets on the Flop, 0 big bet on the Turn, 1 big bet on the River - total 2 big bets

^c 2 small bets on the Flop, 0 big bet on the Turn, 0 big bet on the River - total 1 big bet

^d 2 small bets on the Flop, 1 big bet on the Turn, 1 big bet on the River - total 2.5 big bets

^e 2 small bets on the Flop, 1 big bet on the Turn, 0 big bet on the River - total 1.5 big bets

^f EV of Raising = $(19.15\% \times 3 + 15.82\% \times 2 + 65.03\% \times -1) = 0.24$

^g EV of Calling = $(19.15\% \times 2.5 + 15.82\% \times 2.5 + 65.03\% \times -1.5) = -0.10$

Against this opponent, your EV of raising on the Flop is +0.24 big bets (\$9.60 in a \$20-\$40 game). And the EV of calling is -0.10 big bets (-\$4.00 in a \$20-\$40 game), 0.34 big bets less than the EV of raising. The negative EV of calling does not tell the whole story though. Only the amount won or lost after the Flop bet by your opponent was counted in this chart. If the previous bets were added in, then calling and raising would have positive EV. If the pot size after your opponent has bet on the Flop was 5 big bets, then the EV difference is still +0.34 big bets (+1.99 for raising vs +1.65 for calling). See the Appendix on Free Card Stats for more information. Comparing the EV of raising and the EV of calling, the pot size previous to the bets on the Flop are not relevant. The EV of raising with a flush draw if the opponent plays the same way regardless of the pot size is always exactly +0.34 big bets greater than the EV of calling. If it was 100 big bets, then the EV difference is also still +.34 big bets (+35.21 and +34.87). The pot size is not the key variable to this strategy. The key variable is how your opponent acts.

If your opponent is passive, as this example describes, then he will give you the free card on the Turn all the time. If he is more aggressive, then he may re-raise on the Flop or bet out on the Turn, and that is the variable that could change the value of raising for a free card. These counter strategies to the free card raise are discussed in the next section.

Counter Strategies to the Free Card Raise

Although raising for a free card is a powerful strategy, there are counter strategies available. A sharp player who can detect his opponent's free card raise can use these counter strategies to thwart his opponent's plan. Here are some counter strategies against the free card raise. The late position player is denoted as LP and the early position player is denoted as EP.

1. Re-raising on the Flop

If there is a draw on the Flop and you are sure the LP is a player who would definitely raise for a free card if he had a draw, then you may consider re-raising on the Flop. This thwarts the free card strategy as it makes the free card raiser put in more bets rather than fewer bets. Instead of getting a card for "free", you have made it expensive for him.

2. Betting out on the Turn

After the LP had raised on the Flop, the EP can bet out on the Turn and force the LP to put in more chips than the LP was hoping for. There is value in waiting until the Turn for the EP to bet (compared to re-raising on the Flop), as the EP can see if a dangerous card has come on the Turn.

There can still be value for the LP to raise for a free card, depending on how likely the EP is to employ the counter strategy of betting on the Turn. The value of raising for a free card by the LP is determined by the percentage of time the EP will bet out on the Turn (when he has a better hand) even after the EP was raised on the Flop. If the EP bets out on the Turn all the time, then the strategy of the free card raise by the LP has backfired. If the EP never bets out on the Turn, then the strategy of the free card raise by the LP has worked. This chart shows that percentage in the Breakeven Point column. The Breakeven Point is determined by the number of outs the LP is drawing to. The fewer outs the LP has, the lower the Breakeven Point will be. The chart assumes the pot size was 5 big bets before the LP raised on the Flop.

Type of Draw by LP	Outs	EV of <u>free card raise</u> when EP		EV of <u>calling</u> on the Flop	Breakeven Point ^a for raising
		always <u>checks</u> on the Turn	always <u>bets</u> on the Turn		
Flush	9	+1.99	+1.50	+1.65	69.5%
Straight	8	+1.69	+1.15	+1.33	65.7%
Overcards	6	+1.06	+0.41	+0.67	59.9%
Lower Split Pair	5	+0.73	+0.04	+0.33	57.6%

^aProbability of the EP betting on the Turn with a better hand after the LP raises on the Flop that would make the EV of a free card raise the same as the EV of just calling.

The EV of the free card raise is dependent on the frequency that the EP will bet on the Turn when he has the better hand. In the chart above, it shows that if the EP always checks on the Turn when the LP raises for a free card on the Flop, then the EV of raising for a free card is significantly higher than the EV of calling. (For example, if the LP has a straight draw with 8 outs, the EV of a free card raise if the EP always checks on the Turn is +1.69. If the LP just calls on the Flop, then his EV is +1.33. In that case, a free card raise has gained the LP +0.36.) This is true in all

situations no matter the type of draw by the LP, although the value of raising for a free card will vary depending on the number of outs the LP has.

However, if the EP can play back and bets out on the Turn all the time when he does have the better hand, then the EV of the free card raise for the LP is lower than the EV of calling on the Flop. (For example, if the LP has a flush draw with 9 outs, the EV of a free card raise if the EP always bets on the Turn is +1.50. If the LP just calls on the Flop, then his EV is +1.65. In that case, a free card raise has lost the LP -0.15.) This shows that the value of the strategy of raising for a free card is partially based on the EP's aggressiveness.

The EP's aggressiveness can be expressed as the probability that he will bet on the Turn with the better hand after he is raised on the Flop. The breakeven point is shown on the chart above. For example, if the LP raised on the Flop for a free card with a flush draw, the EP has to be willing to bet on the Turn with a better hand less than 69.5% of the time for the free card raise by the LP to be a better option than just calling on the Flop. On the chart, it shows that the fewer outs there are, the lower that breakeven point needs to be. This means with fewer outs, the aggressive level of the opponent becomes a bigger factor in the value of raising for a free card.

Here are a few key points to consider regarding raising for a free card:

A. You should use the free card raise less often against aggressive players and more often against passive players. Passive players will check on the Turn more often, thus giving you the benefits of raising for a free card. Aggressive players will bet on the Turn more often and make your free card raise backfire. However, for “advertising” value, it can still be useful to raise for a free card against observant aggressive players if you play against them on a constant basis. If your observant aggressive opponent thinks you will raise for a free card against him, then he will play back against you as he would against anybody else in that situation. You should use that information to raise him when you have a made hand but it looks like your raise was a free card raise (such as when there are two cards of the same suit on the Flop). If you never raise for a free card against him, then he may not play back at you when you have a made hand, because he may think your raise is more likely to be with a made hand instead of a draw. Against an observant opponent like this, your free card raises could be termed as “advertising” plays or loss leaders. You may be giving up a bit of edge when you are raising for a free card, but you will be able to gain it that edge back (and hopefully more) against the opponent during the hands when you are raising with a made hand.

B. If your opponent is passive, you should use the free card raise more often when you have fewer outs (see column below titled “Increased EV of raising vs calling when EP always checks”). When your opponent is aggressive, you should use it more often when you have more outs (see column below titled “Decreased EV of raising vs calling when EP always bets”). So you should attempt your “advertising” free card raises against aggressive players when you have more outs.

This chart assumes your opponent has middle pair and cannot be bluffed out of the pot.

Type of Draw by LP	EV of <u>raising</u> for a free card ...		EV of <u>calling</u>	Increased EV of raising vs calling when EP always	Decreased EV of raising vs calling when EP always
	...when EP always <u>checks</u> on the Turn	...when EP always <u>bets</u> on the Turn			

				<u>checks</u>	<u>bets</u>
Flush	+1.99	+1.50	+1.65	+0.34 (1.99-1.65)	-0.15 (1.50-1.65)
Straight	+1.69	+1.15	+1.33	+0.36	-0.18
Overcards	+1.06	+0.41	+0.67	+0.39	-0.26
Lower Split Pair	+0.73	+0.04	+0.33	+0.40	-0.29

C. Against aggressive players in EP who may think you are raising on the Flop on a draw, you should play even more aggressively when you have a made hand in LP. The aggressive EP will play back at you thinking you are on a draw, this means when you have a made hand, you can win more bets from them due to their own aggressiveness.

D. Against players in LP who are constantly raising for free cards on the Flop and then checking on the Turn when they have not made it yet, you should be betting out on the Turn.

E. Against aggressive players in LP who are not only raising for free cards on the Flop but continuing with semi-bluffs on the Turn, you can wait for the Turn to check-raise them.

3. Betting on the River after the free card raiser has checked on the Turn.

If the LP checks on the Turn when he does not catch his draw, then it is easy for the EP to see that the LP was on a draw when he raised on the Flop. A counter strategy for the EP to use at this stage is to bet out on the River if the River card does not look dangerous. The EP can bet out even with nothing and still win the pot because the LP has a busted draw. On the other hand, if it looks like the River completes a draw, then the EP can have more confidence that he is beat and check with the intention of folding.

Straight draw free card raises

With open-ended or double inside straight draws on the Flop, a raise in late position has the same benefits as a raise for a free card with a flush draw. But it has the added benefit of deception because straight draws are more difficult to read than flush draws (see the section titled Reading Straight Draws in the Reading Hands chapter). This play is especially useful when there are two cards to a flush on the Flop. If a flush card comes on the Turn or River, it may scare your opponents since your actions up to that point were consistent with a player holding a flush draw. Thus you may have an easier time in bluffing. Here is an example.

Your hand: J♠T♠

Flop: 9♥8♥2♣

You have an open-ended straight draw, but there are two hearts on the board. A raise in late position will look like a raise for a free card with a flush draw. If a straight card that is not a heart comes on the Turn or the River, it will be more difficult for your opponents to see that you have made your draw. You may win an extra bet that you may not have if the flush draw possibility was not present. If you do not catch the straight but a third flush card comes on the Turn or the River,

you may have an easier time bluffing against perceptive players since they are more likely to give you credit for catching the flush draw given your play up to that point.

Overcard free card raises

There are two reasons to raise with overcards on the Flop. The first reason is if there is a chance that you can win the pot with a raise on the Flop. Most players will not fold to a raise on the Flop after they have bet, so do not count on this happening often. The second reason is if the pot is relatively big, then a raise to get a free card may have value. With overcards to the board, there are at most 6 outs against a player who has a pair. If the other player has two pair or better than the player with overcards would have 0 outs. With 9 or 8 outs, the pot odds usually are high enough to justify staying to the River to see if the draw was made, but with only 6 outs, it may not be so. This is why the pot needs to be bigger for a free card raise with overcards.

For example, you have A♣K♣ in last position and two players limp. You raise, both blinds call as well as both limpers. Five players see the Flop for 5 big bets.

Your Hand: A♣K♣

Flop: J♦8♠3♥

The first player checks and surprisingly the second player bets. It gets folded to you. You may consider raising since the pot is relatively big. It would be worthwhile to stay in the hand and see if an A or K comes on the Turn. A raise may give you a chance for a free card and see the Turn and River for just one more small bet. Since you had raised pre-Flop and have now raised on the Flop, you are telling the rest of the table you have a premium hand such as AA or KK. If you get re-raised, it usually means your opponent is not worried about playing against an overpair. This means he is likely to have a hand such as two pair or trips.

More flush draw free card game theory

If your early position opponents can play back at you when you raise for a free card, then it may be useful to raise in situations where it looks like you may be going for a free card when you are not. This can be set up when there are two cards to a flush on the board and you have a made hand such as top pair, two pair or an overpair. You may decide to raise on the Flop instead of waiting to raise on the Turn. This may cause some sharp opponents to think you are raising for a free card. When they try to use counter strategies (such as re-raising on the Flop or betting out on the Turn if a third flush card does not come), then you can raise them again.

Here is an example. You hold top pair and are in late position (relative to the other players still in the hand).

Your hand: A♣T♥

Flop: T♠5♠3♣

If you are against an early position opponent who may think your raise on the Flop means a free card raise with a flush draw, then you should not slowplay this hand on the Flop (even if there were

flush draws on the Flop, you should probably play the hand strong since there are three possible overcards to your hand). You should raise on the Flop and hope that a non-flush card hits the Turn.

Your opponent may then feel comfortable betting out on the Turn, since he does not want to give you a free card. Now you can raise him again on the Turn. You have gained an extra small bet compared to not raising on the Flop and waiting for the Turn to raise. Most opponents will not bet out on the Turn with a hand like JT after you raise them on the Flop, fearing a higher kicker. You have to decide which opponents will bet out on the Turn with a weaker T (or lower pair) as a counter strategy against a free card raiser, and which opponents will only bet out with a set or two pair. In this case, you are not trying for a free card, but you can still use your opponent's knowledge of the strategy to your advantage.